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Spring Shaft for Pipe Cleaning Apparatus



BACKGROUND AND SUMMARY OF THE INVENTION

The invention relates to a spring shaft for cleaning pipelines.

Such spring shafts, which are also called cleaning coils, consist usually of a coiled drawn steel wire of round cross section with a smooth surface. They are provided at their ends with couplings for connecting to a great variety of tools, such as drills, cutterheads, thrashing chain heads, pipe brushes, root cutters, mud drills, etc. The machines that drive them and their manner of operation are explained in the detailed description.

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Embodiments of the invention are described below in conjunction with Figures 1 to 5.

Figure 1 is a side view of a section of the length of a spring shaft of a first embodiment,

Figure 2 the section II from Figure 1 on a larger scale,

5 Figure 3 a section through a half turn of the spring shaft of Figure 1, also on a scale larger than in Figure

1,

Figures 4a-d various additional embodiments on a section of the length of a spring shaft on a scale larger

32 than in Figure 1, and Figure 5 is a view of a spring shaft according to the prior art.

DETAILED DESCRIPTION.

10 In Figures 1 to 3 there is shown a spring shaft 1 for a pipe cleaning apparatus not shown, which consists in a known manner of a portable or mobile driving machine having an electric motor and a clutch driven thereby. This clutch contains sector-shaped clutch jaws which can be urged radially against the spring shaft, the pressure applied determining the torque of the spring shaft.

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